REMARKS

Claims 1-5, 7-23 and 25-32 are in this application and are presented for consideration. By this amendment, Applicant has amended claims 1, 14, 22, 31 and 32. Claims 6 and 24 have been canceled. Applicant wishes to note that the claims as now presented have been allowed in the corresponding European patent application EP 1 673 696 B1 as shown in the attached sheet.

The Office Action states that the specification filed on April 11, 2006 does not include a section for "Background of the Invention".

Applicant has attached a substitute specification as well as a marked-up copy of the specification to address this issue.

Claims 1-21 have been rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps.

Applicant has amended the claims paying close attention to the Examiner's remarks. It is Applicant's position that the claims as now presented fully comply with the requirements of the statute. Accordingly, Applicant respectfully requests that the Examiner remove the rejection in light of the changes to the claims.

Claims 22-30 and 32 have been rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections.

Applicant has amended claims 22 and 32 paying close attention to the Examiner's remarks. It is Applicant's position that claims 22 and 32 identify the structure of the claimed

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device. Accordingly, Applicant respectfully requests that the Examiner favorably consider claims 22 and 32 as now presented.

Claims 14 and 28 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Applicant has amended claims 14 and 28 paying close attention to the Examiner's remarks. It is Applicant's position that the claims as now presented are clear and fully comply with the requirements of the statute. Accordingly, Applicant respectfully requests that the Examiner remove the indefiniteness rejection in light of the changes to the claims.

Claims 1 - 4, 6-10, 12, 13, 15, 17-19, 21, 22, 24, 31 and 32 have been rejected under 35 U.S.C. 102(e) as being anticipated by Kimura et al. (US 6,996,828).

The present invention relates to a method and a device for operating a secondary operating system and a primary operating system on a processor. The method and device comprise interrupt tables of the operating systems. The interrupt tables are exchanged during an interrupt call wherein the interrupt table of the primary operating system is replaced with the interrupt table of the secondary operating system. The primary operating system has a second operating system driver that comprises an interrupt handling routine. The interrupt handling routine determines information stored in the interrupt table of the secondary operating system that corresponds to a point in the secondary operating system at which the interrupt call is to be serviced. This advantageously allows for direct reading of the information stored in the interrupt table of the secondary operating system by the secondary operating system driver

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so that the kernel of the secondary operating system does not have to be modified as in conventional techniques. This enables the interrupt processing of the secondary operating system, even with simultaneous operation with the primary operating system, to take place as if only the secondary operating system is operated. This advantageously allows the secondary operating system to be used without having to change the source code for the kernel.

Kimura et al. fails to teach and fails to suggest the combination of switching from a primary operating system to a secondary operating system wherein interrupt tables of the operating systems are exchanged as featured in the present invention. The Office Action takes the position that Column 13, lines 5-13 of Kimura et al. disclose exchanging interrupt table as claimed in the recited combination. Column 13, lines 5-13 of Kimura et al. merely disclose that the address of an interrupt handler for a first OS registered in a current interrupt table register is copied to a handler column of an interrupt identification table. However, Column 13, lines 5-13 of Kimura et al. does not provide any teaching or suggestion for the combination of an interrupt table of a primary operating system that is exchanged with an interrupt table of a secondary operating system wherein the interrupt table of the secondary operating system replaces the interrupt table of the primary operating system as claimed. Column 13, lines 5-13 of Kimura et al. only disclose that the interrupt table register values are changed, but there is no teaching or suggestion for one interrupt table being exchanged for another interrupt table as claimed. Compared with Kimura et al., the interrupt tables of the operating systems are exchanged and the primary operating system is switched to a secondary operating system based on an interrupt call. According to the present invention, each interrupt is assigned to only one

of the two operating systems and can be processed either by only the primary operating system or only the secondary operating system. This enables the secondary operating system driver of the primary operating system to process the inputs from the interrupt table of the secondary operating system to be re-determined at each interrupt for switching from the primary to the secondary operating system and the target address to be initiated. When the operating system of the present invention is switched the interrupt of the primary operating system is replaced with the interrupt table of the secondary operating system in the processor, so that a common interrupt handler is not necessary as featured in Kimura et al. When the secondary operating system of the present invention is active and an interrupt takes place for this, the interrupt handling routine of the secondary operating system is called automatically, from which point there is a switch back to the secondary operating system driver of the primary operating system and the operation of the primary operating system is continued. In contrast to the present invention, Kimura et al. merely discloses a common interrupt controller, but does not disclose switching from a primary operating system to a secondary operating system based on an interrupt call wherein interrupt tables of the operating systems are exchanged as claimed. As such, the prior art as a whole takes a completely different approach and fails to teach or suggest each of the features as claimed. Accordingly, Applicant respectfully requests that the Examiner favorably consider claims 1, 22, 31 and 32 as now presented and all claims that respectively depend thereon.

Claims 5, 11, 14, 16, 20, 23 and 25-30 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura et al. in view of Lescouet et al. (US 20040205755).

Although Lescouet et al. teaches a method of enabling multiple different operating systems to run concurrently on the same computer, the references as a whole fail to suggest the combination of features claimed. Specifically, Kimura et al. and Lescouet et al. provide no suggestion or teaching for the combination of a primary operating system that is switched to a secondary operating system based on an interrupt call wherein interrupt tables of the systems are exchanged. As such, the references together do not teach or suggest the combination of features claimed. One of ordinary skill in the art is presented with various concepts, but these concepts do not provide any direction as to combining the features claimed. All claims define over the prior art as a whole.

Favorable consideration on the merits is requested.

Respectfully submitted
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Enclosed: Substitute Specification and Marked up copy of Translation
             Copy of Claims from Granted EP 1 673 696 B1

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